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NEWS	15	JUN	13	USPATFULL and USPAT2 updated with 11-character
				patent numbers for U.S. applications
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NEWS	17	JUN	25	CA/CAplus and USPAT databases updated with IPC reclassification data
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NEWS	21	JUN	30	STN AnaVist enhanced with database content from EPFULL
NEWS		JUL		CA/CAplus patent coverage enhanced
NEWS		JUL		EPFULL enhanced with additional legal status
				information from the epoline Register
NEWS		JUL		IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS		JUL		STN Viewer performance improved
NEWS	26	AUG	01	INPADOCDB and INPAFAMDB coverage enhanced

NEWS 27 AUG 13 CA/CAplus enhanced with printed Chemical Abstracts page images from 1967-1998

NEWS 28 AUG 15 CAOLD to be discontinued on December 31, 2008

NEWS 29 AUG 15 CAplus currency for Korean patents enhanced

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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FULL SCREEN SEARCH COMPLETED -702 TO ITERATE

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1 SEA SSS FUL L1

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FILE COVERS 1907 - 20 Aug 2008 VOL 149 ISS 8 FILE LAST UPDATED: 19 Aug 2008 (20080819/ED)

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=> s 13 L4 1 L3

=> d 14, ibib abs hitstr, 1

L4 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:875058 HCAPLUS

139:350581 DOCUMENT NUMBER:

TITLE:

Preparation of pyridoxal phosphate derivatives for treating or preventing viral infections and associated diseases

INVENTOR(S): Diana, Guy D.; Bailey, Thomas R.; Young, Dorothy C.;

Chunduru, Srinivas K.

PATENT ASSIGNEE(S): Viropharma Incorporated, USA PCT Int. Appl., 68 pp. SOURCE:

CODEN: PIXXD2

Patent DOCUMENT TYPE: LANGUAGE: English FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| | PA: | ATENT NO. | | | | KIND | | DATE | | | APPLICATION NO. | | | | | DATE | | | |
|------|------------------------|------------|-----|-----|----------|---------|-----------------|------|-----------------|-----|-----------------|-------|----------|-----|-----|------|------|-----|--|
| | | 2003090674 | | | A2
A3 | | | | WO 2003-US12192 | | | | 20030423 | | | | | | |
| | WO | 2003
W: | | | | | | | | BA. | BB. | BG, | BR. | BY. | B7. | CA. | CH. | CN. | |
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| | AU 2003237088 | | | | | | | | | | | | | | | | | | |
| | US 20050288258 | | | | A1 | | 2005 | | | | | | | | | | | | |
| PRIO | PRIORITY APPLN. INFO.: | | | | | | | | | | 2002- | | | | | | | | |
| | | | | | | | | | | | WO 2 | 2003- | US12 | 192 | | W 2 | 0030 | 423 | |
| | OTHER COURCE (C). | | | | | 3.47 D1 | ממממי. מכו שגממ | | | | | | | | | | | | |

OTHER SOURCE(S): MARPAT 139:350581

GI

AB Pyridoxal derivs. I (X = CH:N, (un)substituted CH:CH; R = (un)substituted alkyl, aryl, aralkyl, heterocyclic, NH2; Rl = (un)substituted alkyl) were prepared for use as inhibitors of viruses of the Flaviviridae family (no data). Thus, pyridoxal phosphate was treated with 2-aminonaphthalene to give I (X = CH:N, R = 2-naphthyl, Rl = Me].

IT 619315-29-6P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyridoxal phosphate derivs. for treating or preventing viral infections and associated diseases)

RN 619315-29-6 HCAPLUS

CN 3-Pyridinemethanol, 5-hydroxy-6-methyl-4-[[(5-methyl-1H-tetrazol-1-yl)imino]methyl]-, α-(dihydrogen phosphate) (9CI) (CA INDEX NAME)

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| FULL ESTIMATED COST | 8.14 | 191.31 |
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FILE LAST UPDATED: 01 May 1997 (19970501/UP)

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L3 1 S L1 FULL

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FILE 'CAOLD' ENTERED AT 17:34:16 ON 20 AUG 2008

=> s 13 L5 0 L3

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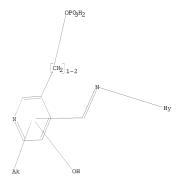
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FILE LAST UPDATED: 19 Aug 2008 (20080819/ED)
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=> s 110 and diana, g?/au 162 DIANA, G?/AU 0 L10 AND DIANA, G?/AU => s 110 and bailey, t?/au 551 BAILEY, T?/AU L12 0 L10 AND BAILEY, T?/AU => s 110 and young, d?/au 4463 YOUNG, D?/AU 1.13 0 L10 AND YOUNG, D?/AU

6 L9

=> d 110, ibib abs hitstr, 1-6

L10 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2007:764445 HCAPLUS

DOCUMENT NUMBER: 147:316956

TITLE: Molecular Architecture of DesI: A Kev Enzyme in the

Biosynthesis of Desosamine

Burgie, E. Sethe; Holden, Hazel M. AUTHOR(S): CORPORATE SOURCE: Department of Biochemistry, University of Wisconsin,

Madison, WI, 53706, USA

SOURCE: Biochemistry (2007), 46(31), 8999-9006

CODEN: BICHAW; ISSN: 0006-2960 PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

Desosamine is a 3-(dimethylamino)-3,4,6-trideoxyhexose found, for example, in such macrolide antibiotics as erthyromycin, azithromycin, and

clarithromycin. The efficacies of these macrolide antibiotics are markedly reduced in the absence of desosamine. In the bacterium Streptomyces venezuelae, six enzymes are required for the production of dTDP-desosamine. The focus of this X-ray crystallog, anal, is the third enzyme in the pathway, a PLP-dependent aminotransferase referred to as DesI. The structure of DesI was solved in complex with its product, dTDP-4-amino-4,6-dideoxyglucose, to a nominal resolution of 2.1 Å. subunit of the dimeric enzyme contains 12 α-helixes and 14 β-strands. Three cis-peptides are observed in each subunit, Phe 330, Pro 332, and Pro 339. The two active sites of the enzyme are located in clefts at the subunit/subunit interface. Electron d. corresponding to the bound product clearly demonstrates a covalent bond between the amino group of the product and C-4' of the PLP cofactor. Interestingly, there are no hydrogen-bonding interactions between the protein and the dideoxyglucosyl group of the product (within 3.2 Å). The only other sugar-modifying aminotransferase whose structure is known in the presence of product is PseC from Helicobacter pylori. This enzyme, as opposed to DesI, catalyzes amino transfer to the axial position of the sugar. A superposition of the two active sites for these proteins reveals that the major differences in ligand binding occur in the orientations of the deoxyglucosyl and phosphoryl groups. Indeed, the nearly 180° difference in hexose orientation explains the equatorial vs. axial amino transfer exhibited by DesI and PseC, resp.

IT 947753-02-8

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(external aldimine intermediate; structural study indicates orientation of substrate hexose ring promotes equatorial amino transfer by DesI from S. venezuelae)

RN 947753-02-8 HCAPLUS

CN Thymidine 5'-(trihydrogen diphosphate), P'-[4,6-dideoxy-4-[(E)-[[3-hydroxy-2-methyl-5-[(phosphonoxy)methyl]-4-pyridinyl]methylene]amino]-α-D-glucopyranosyl] ester (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

Me

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:123824 HCAPLUS DOCUMENT NUMBER: 116:123824

ORIGINAL REFERENCE NO.: 116:20820h,20821a

TITLE:

Mechanistic and stereochemical studies of a unique dehydration catalyzed by CDP-4-keto-6-deoxy-D-qlucose-

3-dehydrase: a pyridoxamine 5'-phosphate dependent enzyme isolated from Yersinia pseudotuberculosis AUTHOR(S): Weigel, Theresa M.; Miller, Vaughn P.; Liu, Hung Wen CORPORATE SOURCE: Dep. Chem., Univ. Minnesota, Minneapolis, NN, 55455,

SOURCE: Biochemistry (1992), 31(7), 2140-7 CODEN: BICHAW; ISSN: 0006-2960

DOCUMENT TYPE: Journal

LANGUAGE: English

AB CDP-4-keto-6-deoxy-D-glucose 3-dehydrase (E1) purified from Y. pseudotuberculosis is a pyridoxamine 5'-phosphate (PMP)-dependent enzyme which catalyzes the C-O bond cleavage at C-3 of a CDP-4-keto-6-deoxy-Dglucose substrate, a key step in the formation of 3,6-dideoxyhexoses. Since enzyme E1 utilizes the PMP cofactor in a unique manner, it is essential to establish its role in El catalysis. When an incubation was conducted in [180]H2O, incorporation of 180 into positions C-3 and C-4 of the recovered substrate was observed. This result not only provided the evidence necessary to reveal the reversibility of E1 catalysis but also lent credence to the formation of a A3,4-qlucoseen intermediate. In view of E1 catalysis being initiated by a C-4' deprotonation of the PMP-substrate complex the stereochem, course of this step was examined using chemical synthesized (4'S) - and (4'R) - [4'-3H]PMP as probes. The results clearly demonstrated that the stereochem. of this deprotonation of pro-S specific, which was in agreement with the stereochem. consistency found with other vitamin B6 phosphate-dependent enzymes. The fact that reprotonation at C-4' of the PMP-Δ3, 4-glucoseen complex in the reverse direction of El catalysis was also found to be pro-S-stereospecific strongly suggested that enzyme El, like most of its counterparts, has the si face of its cofactor-substrate complex exposed to solvent and accessible to active-site catalytic groups as well. These stereochem, studies have given support to the role postulated for the PMP cofactor in the proposed mechanism, and they also suggest that the active site of E1 may share features similar to other pyridoxal 5'-phosphate/PMP-linked enzymes which control the orientation of the cofactor-substrate complex. It is worth noting that enzyme El cannot finish C-3 deoxygenation without CDP-6-deoxy-∆3,4-glucoseen reductase (E3) which reduces the nascent E1 product, driving the equilibrium to completion. Although chemical reducing reagents failed to trap the transient El product, 2 well-Known electron shuttle proteins were able to generate a small amount of the dideoxyhexose product. The fact that other electron-transfer reductases can act as substitutes for E3 provided compelling evidence supporting the earlier notion that the E1 product is reduced by a stepwise le-/le- transfer mechanism. Thus, E1, despite having evolved an unusual role for the PMP cofactor, has retained all the essential elements of catalysis common to other vitamin B6 phosphate-dependent enzymes. These results also support the hypothesis of H. C. Dunathan (1971) that this class of enzymes, regardless of its catalytic diversity, evolved from a common progenitor.

IT 139200-07-0 RL: BIOL (Biological study)

(formation and enzymic reduction of, CDP-ketodeoxyglucose dehydrase reaction mechanism in relation to)

RN 139200-07-0 HCAPLUS

CN Cytidine 5'-(trihydrogen diphosphate), P'-[3,4,6-trideoxy-4-[[[3-hydroxy-2-methyl-5-([hosphonoxy)methyl)-4-pyridinyl]methylene]amino]-a-D-ervthro-hex-3-enopyranosyl] ester (901) (CA INDEX NAME)

L10 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:504349 HCAPLUS

DOCUMENT NUMBER: 91:104349

ORIGINAL REFERENCE NO.: 91:16817a,16820a

TITLE: Vitamin B6 antagonists of natural origin

AUTHOR(S): Klosterman, Harold J.

CORPORATE SOURCE: Dep. Biochem., North Dakota State Univ., Fargo, ND, USA

USA

SOURCE: Methods in Enzymology (1979), 62 (Vitam. Coenzymes,

Part D), 483-95

CODEN: MENZAU; ISSN: 0076-6879

DOCUMENT TYPE: Journal LANGUAGE: English

AB Methods for the preparation of some naturally occurring carbonyl reagents and their phosphopyridoxylidene derivs. are presented along with examples of the use of the carbonyl reagents in the study of enzymes.

71299-97-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, for apoaspartate aminotransferase inhibition studies)

RN 71299-97-3 HCAPLUS

CN Proline, 1-[[[3-hydroxy-2-methyl-5-[(phosphonooxy)methyl]-4-pyridinyl]methylene]amino]- (9CI) (CA INDEX NAME)

L10 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1977:564943 HCAPLUS

87 - 164943

DOCUMENT NUMBER:

ORIGINAL REFERENCE NO.: 87:26055a,26058a TITLE:

Fate of 1-aminoproline and urinary excretion of 1-aminoprolyl hydrazone of pyridoxal in rats AUTHOR(S): Tsuji, Hideaki; Moritoki, Keiko; Ogawa, Tadashi;

Sasaoka, Kei Sch. Med., Tokushima Univ., Tokushima, Japan CORPORATE SOURCE:

SOURCE: Agricultural and Biological Chemistry (1977), 41(8),

> 1413-17 CODEN: ABCHA6; ISSN: 0002-1369

DOCUMENT TYPE: Journal

LANGUAGE: English

1-Aminoproline-U-14C was administered to rats i.p. The radioactivity was distributed in all the tissues examined Among them, kidney, lung, liver, and spleen had high sp. activity. The radioactivity in the tissues and blood decreased rapidly as a function of time, except in brain. About 80% of the radioactivity administered was excreted in urine within 24 h. Besides intact 1-aminoproline, several radioactive compds. were detected in the urine sample, and one of them was identified as 1-aminoprolyl hydrazone of pyridoxal.

64501-80-0P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

64501-80-0 HCAPLUS

RN L-Proline, 1-[[[3-hvdroxv-2-methvl-5-[(phosphonooxv)methvl]-4-CN

pyridinyllmethylenelaminol- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry unknown.

L10 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:440127 HCAPLUS

DOCUMENT NUMBER: 65 - 40127 ORIGINAL REFERENCE NO.: 65:7529a-b

TITLE: Multiplicity of cyclic amino acid decarboxylases

AUTHOR(S): Gonnard, Pierre; Camier, Maryse

CORPORATE SOURCE: Lab. Chem. Biol., Nanterre, Fr.

SOURCE: Bulletin de la Societe de Chimie Biologique (1966),

> 48(2), 225-38 CODEN: BSCIA3: ISSN: 0037-9042

DOCUMENT TYPE: Journal

LANGUAGE: French

The Union Internatl. of Biochem. recognizes 5 cyclic amino acid decarboxylases: L-tyrosine carboxy-lyase, 3,4-dihydroxy-L-phenylalanine carboxy-lyase (dopa decarboxylase (I)), L-tryptophan carboxy-lyase, 5-hydroxy-L-tryptophan carboxy-lyase (5-HT-decarboxylase (II)), and L-histidine carboxy-lyase. Some authors claim that I and II are the same enzyme. A study by the present authors of the action upon different decarboxylases of hydrazone, oxime, semicarbazone, and iminotriazole of phospho-5'-pyridoxal tends to confirm the view that I and II are the same enzyme; but some differences are apparent. Thus, the inhibition by hydroxylamine of II but not I can be reversed by addition of pyridoxal. Pyridoxal phosphate hydrazone of α-methylhydrazino-dopa inhibits the decarboxylation of 5-HT at every concentration whereas it enhances decarboxylation of dopa at low concns. and inhibits it at high concns.

13184-01-5, 3-Pyridinemethanol, 5-hydroxy-6-methyl-4-(N-4H-1,2,4triazol-4-ylformimidoyl)-, 3-(dihydrogen phosphate)

(amino acid decarboxylase response to)

RM 13184-01-5 HCAPLUS

CN 3-Pyridinemethanol, 5-hydroxy-6-methyl-4-(N-4H-1,2,4-triazol-4vlformimidovl)-, 3-(dihydrogen phosphate) (7CI, 8CI) (CA INDEX NAME)

L10 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1964:69598 HCAPLUS

DOCUMENT NUMBER: 60:69598

ORIGINAL REFERENCE NO.: 60:12304a-c

TITLE: Action of phospho-5'-pyridoximinotriazole on pyridoxal

enzymes

AUTHOR(S): Gonnard, Pierre; Duhault, Jacques; Camier, Maryse; Nguven-Philippon, Claude; Boigne, Nicole

CORPORATE SOURCE: Nouvelle Fac. Med., Paris

Biochimica et Biophysica Acta, Specialized Section on SOURCE:

Enzymological Subjects (1964), 81(3), 548-59

CODEN: BBASD9; ISSN: 0926-6569

DOCUMENT TYPE: Journal

LANGUAGE: French

Phospho-5'-pyridoximinotriazole behaves as cofactor of pyridoxal enzymes. It is more active than pyridoxal phosphate itself towards glutamate decarboxylase, dopa decarboxylase, and kynurenine hydrolase, and less active towards aspartic-glutamic transaminase. This compound was prepared and selected on account of its structure which is close to Schiff bases formed between amino acids substrates and pyridoxal phosphate, with the object of searching for a possible trans-Schiffization which could explain its coenzymic behavior by liberation of pyridoxal phosphate. The comparison of its activity with that of pyridoxal phosphate and the kinetics of this activity are not in favor of a hydrolysis. Some hypotheses are discussed for the purpose of finding an explanation to the activation of the pyridoxal enzymes by the imine.

13184-01-5, 3-Pyridinemethanol, 5-hydroxy-6-methyl-4-(N-4H-1,2,4triazol-4-vlformimidovl)-, 3-(dihydrogen phosphate)

(effect on enzymes requiring pyridoxal 5-phosphate) 13184-01-5 HCAPLUS

CN 3-Pyridinemethanol, 5-hydroxy-6-methyl-4-(N-4H-1,2,4-triazol-4vlformimidovl)-, 3-(dihydrogen phosphate) (7CI, 8CI) (CA INDEX NAME)

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L12 0 S L10 AND BAILEY, T?/AU

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TT multiplicity of cyclic amino acid decarboxylases

AΠ Gonnard, Pierre; Camier, M. IT 634-25-3 634-27-5 13184-01-5 13184-02-6 13532-05-3

L14 ANSWER 2 OF 2 CAOLD COPYRIGHT 2008 ACS on STN

AN CA60:12304a CAOLD

TI action of phospho-5-pyridoximinotriazole on pyridoxal enzymes

AU Gonnard, Pierre; Duhault, J.; Camier, M.; Nguyen-Philippon, C.; Boigne, N.

IT 13184-01-5

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L15 1 13184-01-5/RN

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RN 13184-01-5 REGISTRY

CN 3-Pyridinemethanol, 5-hydroxy-6-methyl-4-(N-4H-1,2,4-triazol-4-ylformimidoyl)-, 3-(dihydrogen phosphate) (7CI, 8CI) (CA INDEX NAME)

MF C10 H12 N5 O5 P

LC STN Files: CA, CAOLD, CAPLUS DT.CA CAplus document type: Journal

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